

fig. 1
PRIOR ART

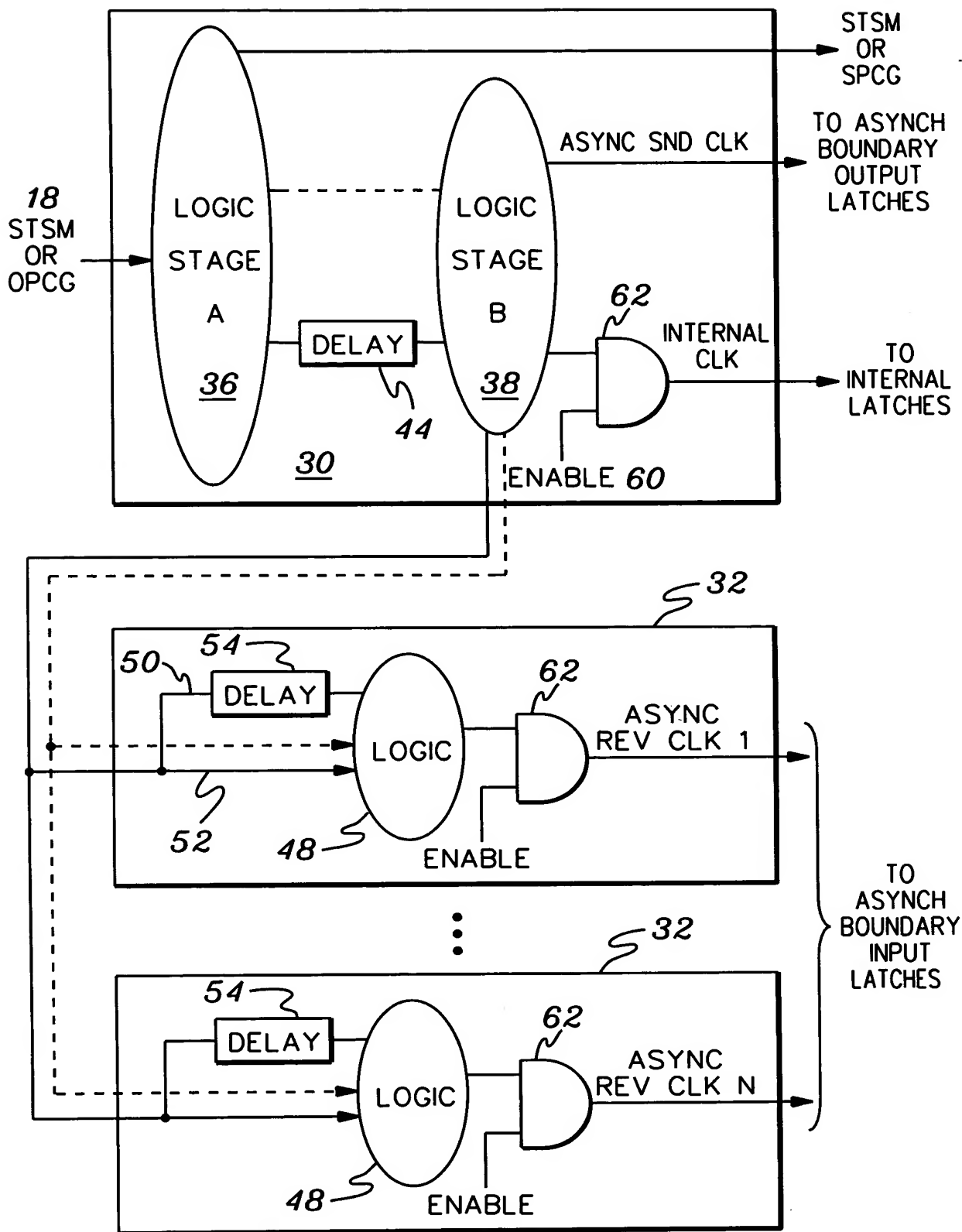


fig. 2

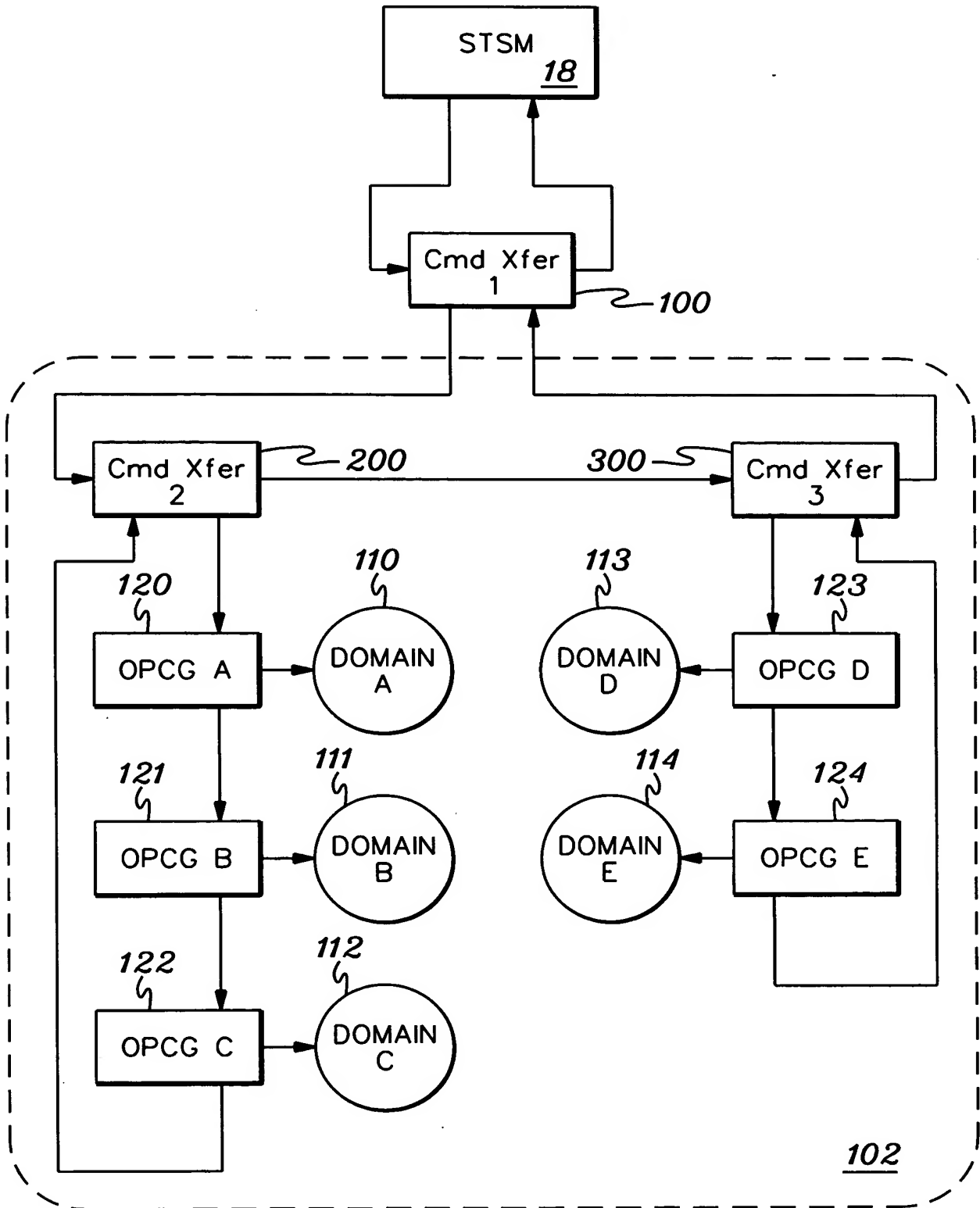


fig. 3

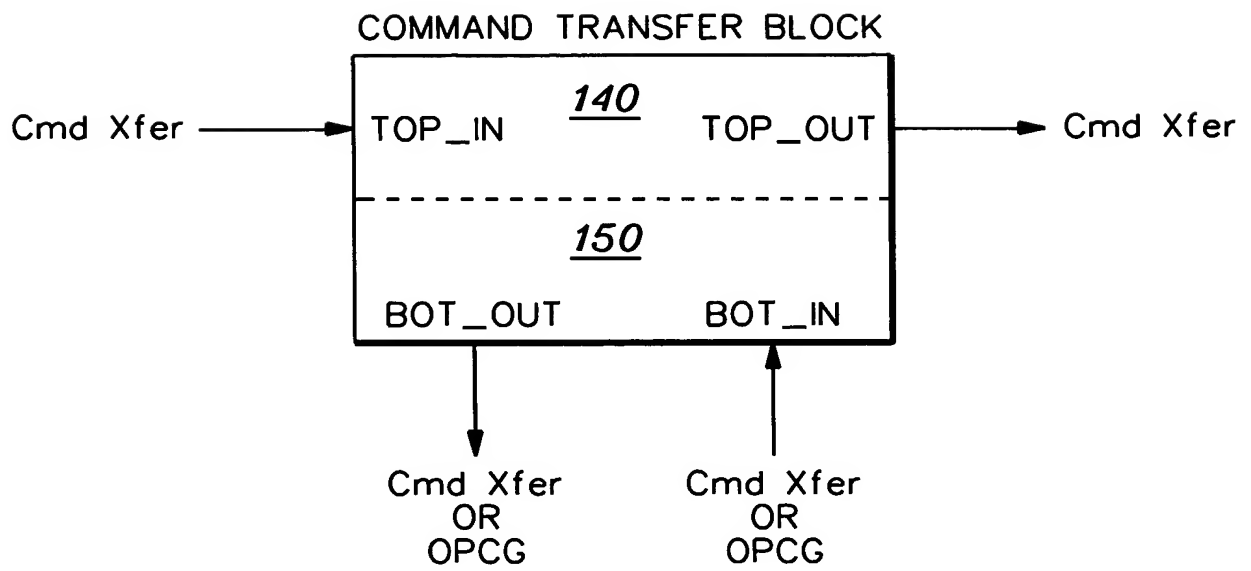


fig. 4

COMMAND TRANSFER BLOCK OPERATION

CURRENT STATE	TOP IN	BOT IN	NEXT STATE	TOP OUT	BOT OUT
Cmd Inactive	0	X	Cmd Inactive	0	0
Cmd Inactive	1	X	Cmd Active	1	1
Cmd Start	0	0	Cmd Start	1	0
Cmd Start	0	1	Cmd Active	0	0
Cmd Start	1	X	Cmd Active	1	1
Cmd Active	0	0	Cmd Inactive	0	0
Cmd Active	0	1	Cmd Active	1	0
Cmd Active	1	X	Cmd Active	1	1

fig. 5

OPCG OPERATION

CURRENT STATE	IN	COMPLETE	NEXT STATE	OUT
SCAN ACTIVE	X	0	SCAN ACTIVE	1
SCAN ACTIVE	0	1	SCAN CMPLT	0
SCAN ACTIVE	1	1	SCAN ACTIVE	1
SCAN CMPLT	0	X	SCAN CMPLT	0
SCAN CMPLT	1	X	S-CLK ACTIVE	1
S-CLK ACTIVE	X	0	S-CLK ACTIVE	1
S-CLK ACTIVE	0	1	S-CLK CMPLT	0
S-CLK ACTIVE	1	1	S-CLK CMPLT	1
S-CLK CMPLT	0	X	S-CLK CMPLT	0
S-CLK CMPLT	1	X	SCAN ACTIVE	1

fig. 6

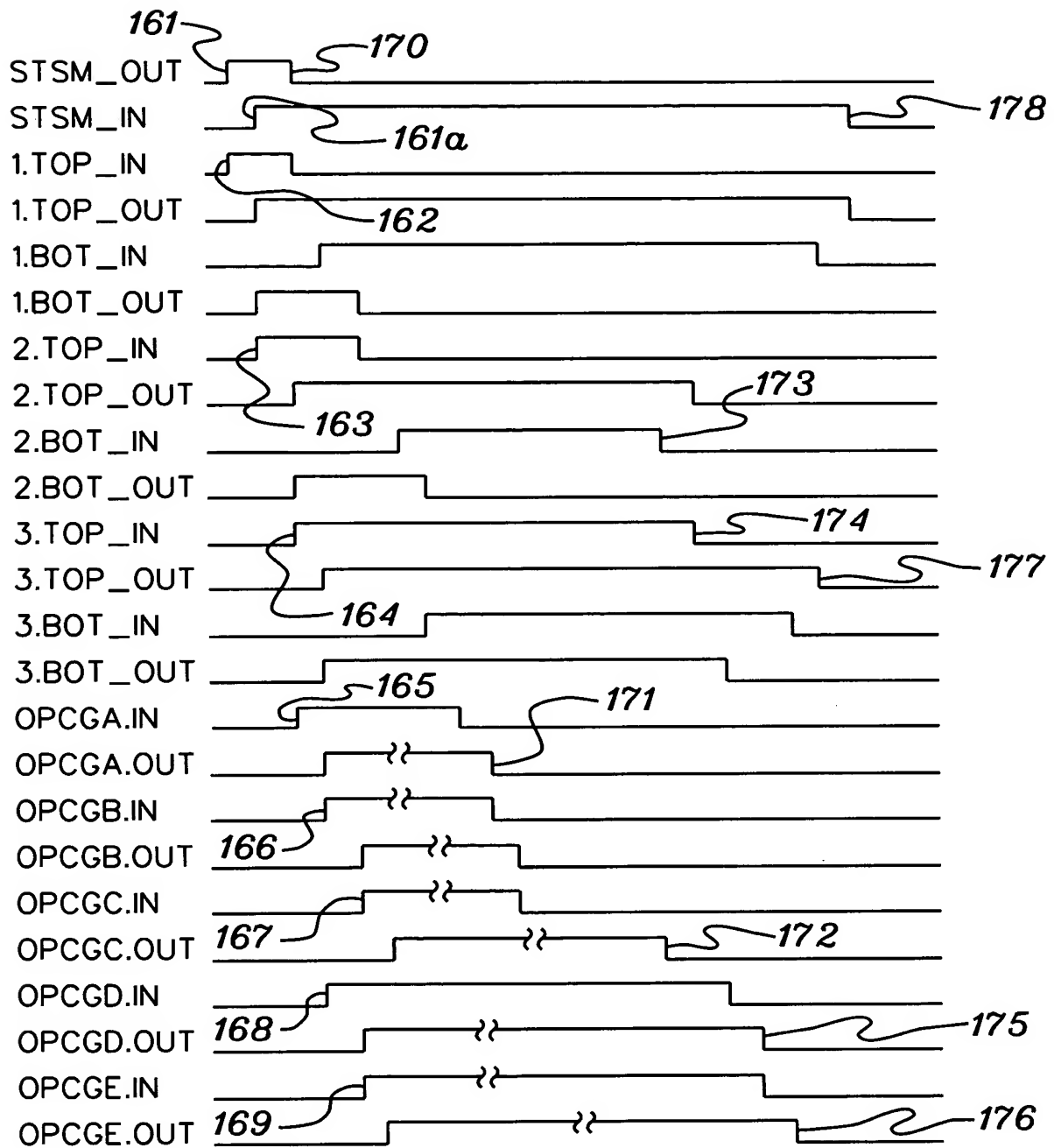
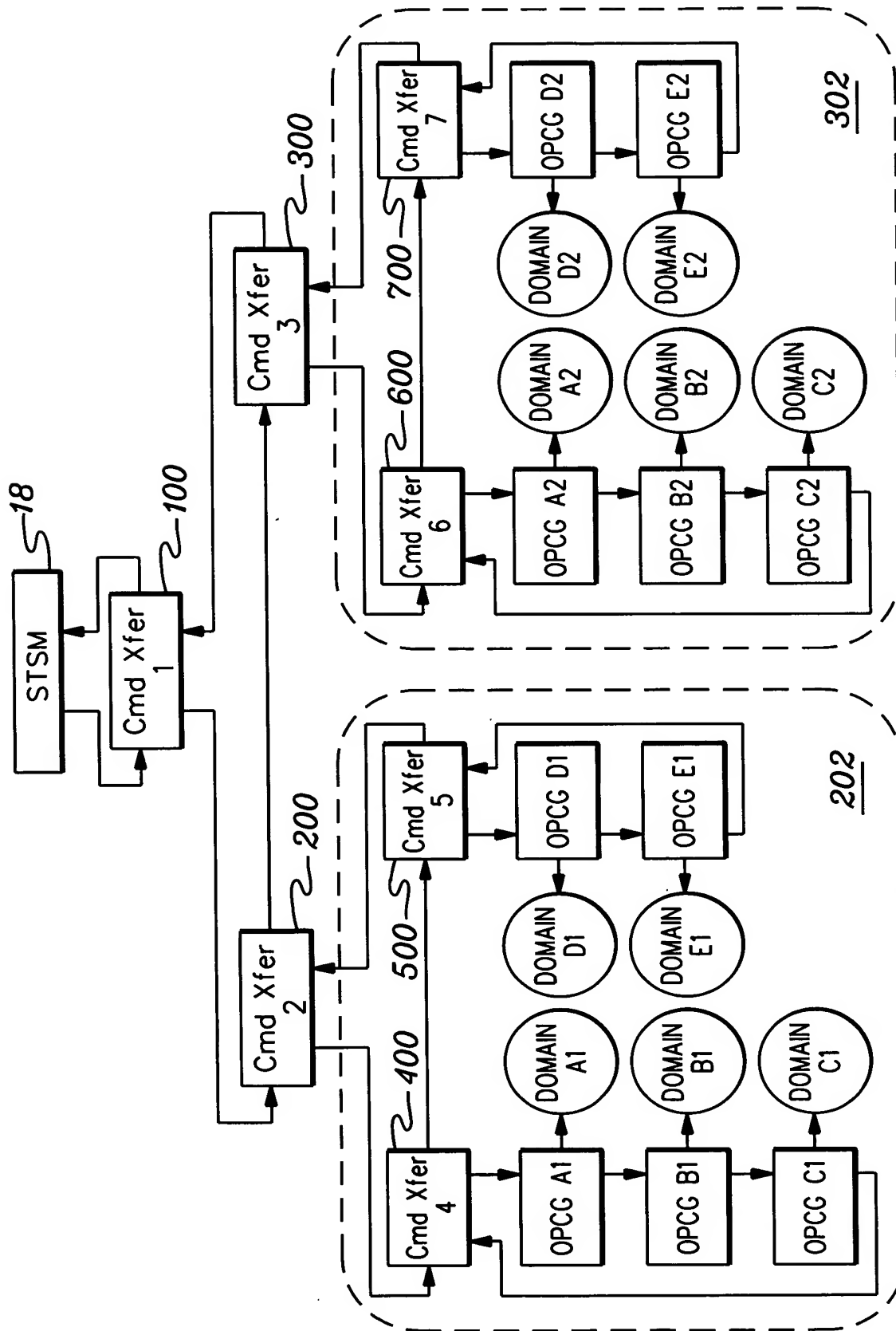


fig. 7



CHIP 2

CHIP 1

fig. 8